IN THE CLAIMS

Please find below a listing of all of the pending claims. The status of each claim is set forth in parentheses. This listing will replace all prior versions, and listings, of claims in the present application.

1. (Currently Amended) A method of evaluating sequencing rules for a multiple lot auction, comprising:

obtaining a next set of bids from a plurality of simulated bidders;

simulating the multiple lot auction using the next set of bids and a sequencing rule until simulated bidding on all lots is closed,

wherein the simulating comprises:

identifying a set of potentially profitable lots for each bidder based on current simulated bid prices;

determining first and second utilities for each potentially profitable lot for each bidder wherein the first and second utilities are calculated as a function of a variable representing the bidder's aversion to risk, and the first utility is for a set of the profitable lots the bidder is currently winning and the second utility is for a set of the profitable lots the bidder will win if bids for the set are accepted;

calculating a utility gain value based on a difference between the first and second utilities; and

accepting bids for lots from the multiple lot auction based on the utility gain value;

simulating the multiple lot auction using a different sequencing rule until bidding on

all lots is closed; and

comparing results of the simulated auctions with both sequencing rules, wherein the

sequencing rules determine how closing times for accepting any bids are ordered among each

of the lots.

2. (Original) The method of claim 1 wherein simulating the multiple lot auction with each

sequencing rule comprises simulating a multiple lot, reverse auction.

3. (Original) The method of claim 1 wherein simulating the multiple lot auction with each

sequencing rule further comprises processing a bid from the next set of bids.

4. (Original) The method of claim 3 wherein processing a bid from the next set of bids

comprises at least one act selected from a group consisting of recording the bid, resetting a

closing time, and permitting each simulated bidder to be informed of the bid being processed.

5. (Original) The method of claim 1 wherein obtaining the next set of bids comprises

determining, for each of a plurality of simulated bidders, whether the bidder is to submit a

bid, when the bidder is to submit a bid, and an amount of the bid.

6. (Original) The method of claim 5 wherein, if a simulated bidder submits a bid, the bid is

submitted according to a random time interval.

7. (Original) The method of claim 1 wherein simulating the multiple lot auction comprises simulating auction time.

8. (Original) The method of claim 1 wherein comparing results comprises, for each simulated auction, determining a metric selected from a group consisting of total procurement cost of all of the lots in the multiple lot auction, average procurement cost per lot, and mean procurement cost per lot.

9. (Currently Amended) A storage medium containing code that can be executed by a processor and, when executed, causes the processor to:

   select a first sequencing rule that dictates how multiple lots in a multiple lot auction are to be auctioned to bidders;

   simulate a multiple lot auction using said first sequencing rule until bidding on all lots is closed wherein the processor is caused to simulate the multiple lot auction by identifying a set of potentially profitable lots for each bidder based on current simulated bid prices; determining first and second utilities for each potentially profitable lot for each bidder wherein the first and second utilities are calculated as a function of a variable representing the bidder's aversion to risk, and the first utility is for a set of the profitable lots the bidder is currently winning and the second utility is for a set of the profitable lots the bidder will win if bids for the set are accepted; calculating a utility gain value based on a difference between the first and second utilities; and accepting bids for lots from the multiple lot auction based on the utility gain value;

   evaluate results of the auction;

select a second sequencing rule, simulate the multiple lot auction using said second

sequencing rule until simulated bidding on all lots is closed, and evaluate results of the

auction, wherein the first and second sequencing rules determine how closing times for

accepting any bids are ordered among each lot of the multiple lot auction; and

determine a metric for each simulated auction.

10. (Original) The storage medium of claim 9 wherein the metric comprises a metric

selected from a group consisting of total cost of all of the lots in the multiple lot auction,

average cost per lot, and mean cost per lot.

11. (Original) The storage medium of claim 9 wherein the code further causes the processor

to compare the metrics from the simulated auctions.

12. (Original) The storage medium of claim 9 wherein the code further causes the processor

to model behavior of a plurality of simulated bidders.

13. (Currently Amended) A system, comprising:

a processor; and

storage coupled to the processor and containing an application that is executable by

the processor;

wherein, when executed, the application causes the processor to simulate a multiple

lot auction using a plurality of sequencing rules and determine a metric associated with each

simulated multiple lot auction, the metric usable to evaluate results of the simulated multiple

lot auction, wherein the plurality of sequencing rules determine how closing times for accepting any bids are ordered among each of lot of the multiple lot auction,

and the processor is caused to simulate the multiple lot auction by identifying a set of potentially profitable lots for each bidder of a plurality of bidders based on current simulated bid prices; determining first and second utilities for each potentially profitable lot for each bidder wherein the first and second utilities are calculated as a function of a variable representing the bidder's aversion to risk, and the first utility is for a set of the profitable lots the bidder is currently winning and the second utility is for a set of the profitable lots the bidder will win if bids for the set are accepted; calculating a utility gain value based on a difference between the first and second utilities; and accepting bids for lots from the multiple lot auction based on the utility gain value.

14. (Original) The system of claim 13 wherein the processor prevents a simulated bidder from winning two lots that are incompatible.

15. (Canceled).

16. (Currently Amended) The system of claim [[15]] 13 wherein the processor eliminates lots from bidding by a simulated bidder if the expected utility gain value for that lot and bidder is less than a threshold.

17. (Currently Amended) The system of claim [[15]] 13 wherein the processor eliminates lots from bidding by a simulated bidder if the expected utility gain value for that lot and bidder is less than a maximum value.

18. (Previously Presented) A system, comprising:

means for simulating bids in a simulated multiple lot auction, wherein the simulating comprises identifying a set of potentially profitable lots for each bidder of a plurality of bidders based on current simulated bid prices; determining first and second utilities for each potentially profitable lot for each bidder wherein the first and second utilities are calculated as a function of a variable representing the bidder's aversion to risk, and the first utility is for a set of the profitable lots the bidder is currently winning and the second utility is for a set of the profitable lots the bidder will win if bids for the set are accepted; calculating a utility gain value based on a difference between the first and second utilities; and accepting bids for lots from the multiple lot auction based on the utility gain value;

means for selecting a bid from the simulated bids for each of a plurality of lots in the multiple lot auction;

means for sequencing bidding on each of the plurality of lots in accordance with a first sequencing rule, wherein the first sequencing rule determines how closing times for accepting any bids are ordered among each of the lots; and

means for determining a first metric associated with the simulated multiple lot auction.

19. (Original) The system of claim 18 further comprising means for simulating the multiple lot auction using a second sequencing rule and means for determining a second metric associated with the simulated multiple lot auction when using the second sequencing rule.

20. (Original) The system of claim 19 further comprising means for comparing the first and second metrics.

21. (Original) The system of claim 18 further comprising means for simulating time in the multiple lot auction.

22. (Original) The system of claim 18 wherein the multiple lot auction comprises a reverse auction.

23. (New) The method of claim 1, wherein the simulating comprises calculating

$$\left[\beta_i + (1 - \beta_i) x \frac{base\ quantity_i}{lot\ quantity} \right] x U_{si}$$

to determine a per unit cost for each item in a lot for each bidder, and β_i is associated with the cost to supply an item i, and U_{si} is a multivariate random variable having dimensions of a number of bidders by a number of items in the lot.